

Math Coordinator Search Update

Dear Members of the Cambridge Community:

This past May, a hiring committee representative of teachers, coaches, dean of curriculum, coordinators, principals, and central office administrators came together to interview candidates to replace Mark Healy as JK-12 Math Coordinator for CPS. Unfortunately, the search failed to yield a high quality candidate that we felt would move the department forward. After careful analysis, we reframed this challenge as an opportunity to for interdisciplinary collaboration by establishing an interim model that merges Science and Math into a STEM department for the 2014-15 school year.

Benefits to a STEM Model

Over the past decade, national growth in STEM jobs has been three times greater than non-STEM jobs and the Federal Bureau of Labor Statistics predicts almost all of the 30 fastest-growing jobs in the next decade will require some STEM skills.¹ The importance of STEM is especially clear in Cambridge where 21 of the top 25 employers are deeply involved in STEM fields, including institutions such as MIT and Biogen Idec.² Unfortunately, in Massachusetts, the number of students in colleges and universities studying in STEM fields actually declined from 1993 to 2007.³ We need to do a better job preparing all of our graduates for success in these careers of the future.

The real world problems faced by employees in STEM fields such as the Cambridge Health Alliance or Google do not fall neatly within traditional disciplinary boundaries such as science or mathematics. Educators are increasingly identifying the importance of “21st Century Skills” that include interdisciplinary skills such as critical thinking, communication, collaboration and creativity.⁴ The revised standards in both mathematics (Common Core) and science (Next Generation Science Standards) contain many overlapping practices such as: problem solving, models and modeling, and argumentation.⁵

Combining the district support structures for science and mathematics into a unified STEM support system will create links across traditional disciplinary divides. Science educators will be more aware of the work of mathematics educators and vice versa, enabling coherence in the teaching of key practices that cut across disciplines as well as the development of interdisciplinary projects. This unified support structure will, in turn, improve student learning of both science and mathematics as well as the key additional areas of technology and

¹ <http://www.washingtonstem.org/STEM/media/Media/Resources/WA-STEM-Fact-Sheet-January2014.pdf>

² <http://www.cambridgema.gov/CDD/factsandmaps/economicdata/top25employers.aspx>

³ <http://www.mass.gov/governor/administration/councilscabinetsandcommissions/stem/more-about-stem/>

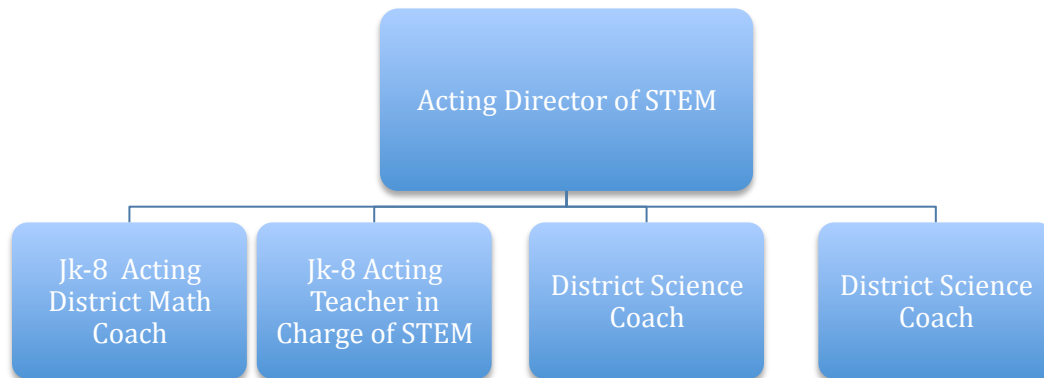
⁴ http://www.p21.org/storage/documents/1._p21_framework_2-pager.pdf

⁵ Mayes, R., & Koballa Jr, T. R. (2012). Exploring the science framework. *Science & Children*, 50(4), 8–15.

engineering, preparing students for STEM careers of the future in Cambridge and beyond.

Interim Model After August 18:

The leadership structure for the newly established interim JK-12 STEM department is illustrated in the diagram below. All staff members below will work in close collaboration with the Dean of Curriculum in Math, and the Dean of Curriculum in Science at CRLS.



This model would put in place an acting director of STEM and an acting Teacher in Charge for STEM, and Acting District Math Coach.

- Lisa Scolaro will serve as acting director of STEM
- Eileen Gagnon will serve as acting Teacher in Charge of STEM.
- Jayne Lynch will serve as acting District Math Coach JK-8.

Currently, Mrs. Scolaro is the Coordinator of Science, Mrs. Gagnon and Ms. Lynch are currently assigned as .5 FTE district math coaches and .5 FTE math coaches at the Kennedy-Longfellow School. The reassignment of these individuals has resulted in the posting of a math coach position at the Kennedy-Longfellow.

During the '14 -'15 academic year, we will be evaluating this model for its effectiveness and determining the long-term plan for the district model for science and mathematics education. The interim STEM model will take effect on August 18th. Please forward any questions or concerns to Dr. Jessica Huizenga, jhuizenga@cpsd.us

Sincerely,

Dr. Jeff Young